

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPLICANT: Vernet, *et al.*

SERIAL NUMBER: 09/825,751

EXAMINER: Misook Yu, Ph.D.

FILING DATE: April 3, 2001

ART UNIT: 1642

FOR: Novel Proteins and Nucleic Acids Encoding the same

Mail Stop  
Commissioner for Patents  
P.O. Box 1450  
Arlington, Virginia, 22313-1450

**DECLARATION UNDER 37 C.F.R. § 1.132**

I, Xiaojia (Sasha) Guo, hereby declare and state as follows:

1. I am employed by Curagen Corporation, the assignee of this application. My title is Senior Research Scientist. I received a Ph.D. in Cell and Developmental Biology from Rutgers, the State University of New Jersey, where I studied the gene regulation of osteopontin. My post doctoral studies encompassed retinoids in cancer therapy at Cornell University Medical College, NY, NY. I have been with CuraGen from October, 2000 to the present.

2. I have read, and am familiar with, the contents of the United States patent application entitled "Novel Proteins and Nucleic Acids Encoding Same", serial number 09/825,751, which was filed April 3, 2001. I understand that the pending claims are directed to an isolated polypeptide comprising SEQ ID NO: 20.

3. I am aware that the Examiner has issued an Office Action. In particular, I understand that the Examiner has rejected the pending claims under 35 U.S.C. §101 and §112, contending that the pending claims are not supported by a substantial asserted utility or a well-established utility.

4. I make this declaration to rebut the Examiner's assertion, with which I do not agree. It is my opinion that the claimed compositions have a specific and substantial utility for at least the following reasons.


5. I have performed, or have had performed under my supervision, studies evaluating the quantitative expression and sequence homology of the nucleic acid encoding the polypeptide of SEQ ID NO:20 in normal and pathological human tissue. The methods used to perform these studies are described in the Appendix attached hereto.

6. In the study, results provided in Table II in the Appendix A, using specific probe/primer sets (Ag 7087, Table I) show that expression of the CG54620-01 gene (alternatively referred to as GMG55707 or AMF10 in the specification) is up-regulated in human kidney cancer tissues as compared to the normal adjacent tissues. The higher expression is evidenced by the relative expression of  $46 \pm 0.2$ ,  $10.4 \pm 0.3$ ,  $10.2 \pm 0.6$ . In addition many kidney cancer tissues showed higher expression of the gene CG54620-01 (Appendix A, Table 1). Note in particular that the ARDAIS Kidney v1.0 panel contains primary diseased tissue and adjacent normal tissue obtained from cancer patient populations. The expression data in the attached Table 1 therefore directly compares primary tumor expression with healthy tissue control. The data is not merely that of various cell lines, as indicated by the Examiner. In summary, these results indicate that modulation of this gene or its protein product has specific utility in the treatment of kidney cancers.

7. I also believe that the expression data, previously presented to the Patent Office on March 4, 2003 by Dr. Patturajan, is evidence supporting the substantial use of the gene in question and its encoded polypeptide in multiple cancers including CNS cancers (Appendix A, Table III, Table IV). Such use is disclosed in the specifications, *e.g.*, at page 48, lines 1-7, and in Table 22 on page 124 (100.0 % AMF-10 expression in CNS ca. (glio/astro) U-118-MG, compared to 0.00 % expression in most other tissues provided).

8. The results of these studies, in my opinion, demonstrate and confirm that nucleic acid and its encoded polypeptide (SEQ ID NO: 20) can be used in therapeutic and diagnostic applications in cancer (*e.g.*, kidney, CNS, lung and bone cancers). Thus, I believe that the Examiner should withdraw the rejection and allow the pending claims.

9. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001, Title 18, United States Code, and that willful false statements may jeopardize the validity of this application and any patent issuing therefrom.

  
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Xiaojia (Sasha) Guo

Signed in New Haven, CT  
this 20 day of October, 2003